

Appl. No. : 10/827,101
Filed : April 19, 2004

AMENDMENTS TO THE CLAIMS

Please cancel Claim 8.

1. (Currently amended) A method for stabilizing a portion of the spine, comprising the steps of:

accessing a first bony surface on a first vertebra, wherein the first vertebra comprises a vertebral body and at least one bony process;

accessing a second bony surface on a second vertebra, wherein the second vertebra comprises a vertebral body and at least one bony process; and

affixing the first bony surface and the second bony surface with an adhesive medium;

wherein the first bony surface and second bony surface of the affixing step comprise a zygapophyseal joint and wherein the affixing step comprises minimally invasively joining the first bony surface and the second bony surface and preserves the cortical bone about the first bony surface and second bony surface.

2. (Canceled)

3. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the affixing step is accomplished under radiographic visualization.

4. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the affixing step comprises joining with a medium that is a cyanoacrylate.

5. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the step of accessing a first bony surface comprises accessing a superior articular process of a vertebra.

6. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the step of accessing a second bony surface comprises accessing an inferior articular process of a vertebra.

7. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the step of accessing a second bony surface comprises accessing a second bony surface on a vertebra adjacent to the first vertebra.

8. (Cancelled)

Appl. No. : 10/827,101
Filed : April 19, 2004

9. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the step of accessing the first bony surface and the step of accessing the second bony surface are performed simultaneously.

10. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the step of accessing the first bony surface and the step of accessing the second bony surface are performed through a single access site.

11. (Original) The method for stabilizing a portion of the spine as in Claim 1, wherein the medium of the joining step comprises a medium that has a radio-opaque component.

12. (Currently Amended) A method for treating a patient, comprising the steps of:

accessing a first bony portion of a first vertebra, wherein the first bony portion is posterior to the vertebral body of the first vertebra;

accessing a second bony portion of a second vertebra, wherein the second bony portion is posterior to the vertebral body of the second vertebra;

engaging the first bony portion and the second bony portion with a medium at least at a zygapophyseal joint between the first bony surface and the second bony surface;
and

fixing the relative orientation between the first vertebra and the second vertebra by permitting physical or chemical transformation of the medium; wherein

the engaging step comprises minimally invasively joining the first bony portion and the second bony portion.

13. (Original) The method for treating a patient as in Claim 12, further comprising the step of aligning the spine prior to the fixing step.

14. (Original) The method for treating a patient as in Claim 12, wherein the step of accessing a first bony portion comprises accessing a superior articular process of a vertebra.

15. (Original) The method for treating a patient as in Claim 12, wherein the medium of the fixing step comprises an adhesive.

16. (Original) The method for treating a patient as in Claim 15, wherein the medium of the fixing step further comprises a cyanoacrylate.

17. (Original) The method for treating a patient as in Claim 15, wherein the adhesive of the fixing step has a viscosity of no more than about 100 centipoise.

Appl. No. : 10/827,101
Filed : April 19, 2004

18. (Previously amended) The method for treating a patient as in Claim 12, wherein the medium of the fixing step comprises a radio-opaque component.

19. (Original) A method of treating a spine, comprising the steps of:

accessing a space between a first facet on a superior articular process of a first vertebra and a second facet on a corresponding inferior articular process of a second vertebra;

orienting the first vertebra and second vertebra; and

filling at least a portion of the space with a medium to secure the orientation between the first vertebra and second vertebra.

20. (Original) The method of treating the spine as in Claim 19, wherein the first and second vertebrae of the accessing step are located in the lumbosacral region.

21. (Original) The method of treating the spine as in Claim 19, wherein the filling step is performed under fluoroscopy.

22. (Original) The method of treating the spine as in Claim 19, further comprising the step of treating the vertebral disc between the first and second vertebrae.

23. (Original) The method of treating the spine as in Claim 19, wherein the medium of the filling step is capable of undergoing a physical or chemical transformation.

24. (Original) The method of treating the spine as in Claim 19, wherein the medium of the filling step comprises a radio-opaque component.

25. (Currently Amended) A method of treating a spine, comprising the steps of:

minimally invasively accessing a zygapophyseal joint between adjacent vertebrae, the adjacent vertebrae comprising a superior vertebra with at least one inferior articular process and a inferior vertebra with a vertebral body and at least one superior articular process,

wherein at least one inferior articular process of the superior vertebra corresponds to a superior articular process of the inferior vertebra; and

positioning the adjacent vertebra from a first spatial orientation to a second spatial orientation; and

securing the adjacent vertebrae in the second spatial orientation by engaging at least one superior articular process of one of the two adjacent vertebrae with the

Appl. No. : 10/827,101
Filed : April 19, 2004

corresponding inferior articular process of the other of the two adjacent vertebrae using a medium at the zygapophyseal joint between the at least one superior articular process and the corresponding inferior articular process.

26. (Original) The method of treating a spine as in Claim 25, wherein the medium of the securing step is an adhesive.

27. (Original) The method of treating a spine as in Claim 25, further comprising the step of permitting the medium to dissipate following a treatment period of time.

28. (Original) The method of treating a spine as in Claim 27, wherein the treatment period of time is within the range of about one week to about one year.

29. (Original) The method of treating a spine as in Claim 26, wherein the adhesive is a cyanoacrylate.

30. (Cancelled)

31. (Original) The method of treating a spine as in Claim 25, wherein the securing step is performed by permitting the medium to engage at least one superior articular process with the corresponding inferior articular process by at least partially entering the body through capillary action.

32. (Original) The method of treating a spine as in Claim 25, wherein the positioning step is performed before the securing step.

33. (Original) The method of treating a spine as in Claim 25, wherein the positioning step is performed during the securing step.

34. (New) The method of treating a spine as in Claim 25, wherein the positioning step is performed after the securing step.

35. (New) The method of treating the spine as in Claim 25, wherein the minimally invasively accessing step is a percutaneous accessing step.

36. (New) The method of treating the spine as in Claim 35, wherein the percutaneous accessing step is performed with a tubular introducer.

37. (New) The method of treating the spine as in Claim 36, wherein the tubular introducer of the percutaneous accessing step is a cannula.

38. (New) The method of treating the spine as in Claim 36, wherein the tubular introducer of the percutaneous accessing step is a needle.

Appl. No. : 10/827,101
Filed : April 19, 2004

39. (New) The method for stabilizing a portion of the spine as in Claim 1, wherein the affixing step comprises percutaneously joining the first bony surface and the second bony surface with a tubular introducer.

40. (New) The method for stabilizing a portion of the spine as in Claim 39, wherein the tubular introducer of the affixing step is a cannula.

41. (New) The method for stabilizing a portion of the spine as in Claim 39, wherein the tubular introducer of the affixing step is a needle.

42. (New) The method for treating a patient as in Claim 12, wherein the engaging step comprises percutaneously joining the first bony portion and the second bony portion.

43. (New) The method for treating a patient as in Claim 12, further comprising the step of aligning the spine during the fixing step.

44. (New) The method for treating a patient as in Claim 12, further comprising the step of aligning the spine after the fixing step.

45. (New) The method of treating the spine as in Claim 19, wherein the orienting step is performed after the filling step.

46. (New) The method of treating the spine as in Claim 19, wherein the orienting step is performed during the filling step.

47. (New) The method of treating the spine as in Claim 19, wherein the accessing step is performed percutaneously.

48. (New) The method of treating the spine as in Claim 47, wherein the accessing step is performed with a tubular introducer.

49. (New) The method of treating the spine as in Claim 48, wherein the tubular introducer of the accessing step is a cannula.

50. (New) The method of treating the spine as in Claim 48, wherein the tubular introducer of the accessing step is a needle.